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ABSTRACT

This survey questionnaire and self-analysis tool identifies most of the variables that impact institutional custodial operations and that serve as reliable standardized benchmarks for the industry. The survey also clearly defines several benchmarks that should allow more accurate and effective comparisons between operations. Sections cover staffing, evaluation, special considerations, staff development tools, and case studies. Appendices contain a list of custodial requirements and unique factors, space classifications, standard space descriptions, standard space category matrices, a list of normalized base times and standard activities, audit forms, and a bibliography. (GR)

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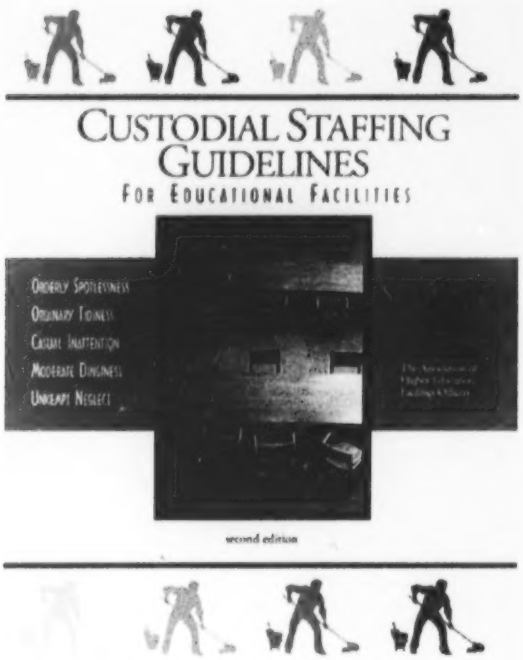
APPA
CUSTODIAL OPERATION SELF-ANALYSIS PROGRAM



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INTRODUCTION

This survey and self-analysis tool has been designed to identify most of the variables that impact institutional custodial operations, as well as to establish some reliable standardized benchmarks for the industry.

We encourage custodial managers to use this survey to assist them in **organizing** important information about their respective operations. Each manager will then be in a better position to describe the complexities of the custodial operation to the "powers that be." By using the results of the survey, managers will be able to justify current operations, identify needs for additional funding, and/or improve their organizations in general.

This survey also clearly defines several benchmarks that should allow everyone in the industry who uses it to discuss and compare their operations more effectively and accurately.

How to Use

Complete survey questions that are only related to the custodial operations under the custodial manager's direct influence. Do not include information from other campuses or parts of the institution that do not report to you.

EF 006 010

Full text available at:
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If you are interested in comparing your results to other institutions, we recommend that your staff identify institutions that are similar in nature. Contacting counterparts at these institutions by phone, e-mail, or on-site visits will provide a detailed experience exchange that will prove to be beneficial to all parties.

Acknowledgments

APPA wishes to thank Greg Fichter of Indiana University/Bloomington for the development of this material. For more information or assistance, please contact him at 812-855-3121 or gfichter@indiana.edu. We also thank the many individuals who served on the task force to develop these custodial guidelines

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Figure 1 Staffing Service Levels

APPA Standard Space	Level #1	Level #2	Level #3	Level #4	Level #5
Classroom with Hard Floor	8,500	16,700	26,500	39,500	45,600
Entranceway	4,300	7,500	12,300	20,700	35,000
Locker/Changing Room - No Shower	11,800	12,100	xxxx	xxxx	xxxx
Office with Carpet Floor	9,600	18,200	32,000	53,000	87,000
Public (Circulation) with Hard Floor	7,500	20,500	30,500	38,400	41,800
Research Lab with Hazardous Waste	5,200	7,000	8,200	11,400	28,200
Research Lab without Hazardous Waste	6,900	10,600	13,500	25,000	87,200
Stairwell	7,500	15,100	17,400	24,500	75,300
Storeroom	77,000	210,000	395,300	1,832,700	3,360,000
Washroom	2,000	2,600	xxxx	xxxx	xxxx
Shower Room	5,200	5,200	xxxx	xxxx	xxxx
Public (Circulation) with Carpet Floor	17,700	40,400	53,500	80,900	93,600
Office with Hard Floor	8,400	14,600	25,100	36,000	49,500
Classroom with Carpet Floor	9,700	21,700	24,000	34,700	37,200
Classroom with Carpet Floor-High Use	5,100	12,700	13,400	17,900	18,800
Classroom with Hard Floor-High Use	4,700	9,600	10,100	21,000	22,900
Washroom-High Use	1,000	1,300	xxxx	xxxx	xxxx
Utility	4,100	5,500	9,800	17,700	45,700
Vending	4,800	11,100	16,000	17,700	19,500
Dormitory Lounge	5,200	8,700	17,800	42,900	136,500
Cafeteria with Carpet	9,900	15,400	xxxx	xxxx	xxxx
Cafeteria with Hard Floor	11,200	16,400	xxxx	xxxx	xxxx
Library with Carpet	17,900	36,900	72,600	106,400	126,800
Library with Hard Floor	10,900	20,200	23,500	47,000	57,000
Auditorium Seating & Foyer	5,700	14,000	32,600	67,200	408,000
Auditorium Stage & Wings	18,600	27,500	82,800	239,500	xxxx
Gymnasium (Wood Floor)	17,300	36,500	80,700	257,400	1,108,200
Dormitory Washroom	1,500	1,800	xxxx	xxxx	xxxx
Dormitory Sleep/Study	3,900	4,100	8,000	18,700	24,700
Patient Conference Room	8,300	8,300	xxxx	xxxx	xxxx
Patient Treatment Area — Carpeted	3,300	3,300	xxxx	xxxx	xxxx
Patient Treatment Area — Hard Floor	2,900	2,900	xxxx	xxxx	xxxx
Nursing Station — Hard Floor	5,700	5,700	xxxx	xxxx	xxxx

GENERAL CAMPUS INFORMATION

Purpose: To identify the factors internal to your campus that have an **impact** on custodial services.

A1. What is the **total** number of full-time students on your campus when in full session?

_____

What is the **total** number of part-time students on your campus when in full session:
_____ **A1 Total**_____

A2. What is the **total** number of faculty and staff on your campus when in full session?
A2 Total_____

A3. Identify the total **gross** square footage under your responsibility. (This is determined by measuring the sum of the floor area **within** the outside faces of the exterior walls for all areas.) _____ **Total gross sq. ft.**

Purpose: To establish a benchmark that quantifies the amount of use in the buildings.

A4. What is your ratio of customers per 10,000 gross sq. ft.? Divide the answer of A3 by 10,000 = A3(10K). Then divide the A3(10K) figure into the total of the A1 and A2 figures.

$\frac{A1+A2}{A3(10K)}$ = # _____users for every 10,000 gross sq. ft. cleaned.

A5. What percentage of your student population resides in campus housing (residence halls, fraternities, sororities) _____%

A6. To determine **when** the custodial work is completed, identify what percentage (%) of your FTE custodial staff works on the following work shifts:

Days: ____%
Evenings: ____%
Late Nights ____%

A7. Identify the **age of your facilities** by estimating the following: Amount of gross square ft. completed or renovated to a new condition between:

1985 - Now _____GSF 1950-1984 _____GSF Prior to 1950 _____GSF

A8. In order for you to get a more complete picture of the type of space your staff maintains, use the following tables to identify the **amount** of space per classification and **who** cleans it:

a) By cleanable square footage (csf) (defined as square footage from wall-to-wall within an assignable space that is being cleaned).

	In-House	Contracted
Medical/Health	_____	_____
Athletic	_____	_____
Academic	_____	_____
Residential (dorms)	_____	_____
Other	_____	_____
	Total_____	**Total**_____

b) By gross square feet

	In-House	Contracted
Medical/Health	_____	_____
Athletic	_____	_____
Academic	_____	_____
Residential (dorms)	_____	_____
Other	_____	_____

c) Labor allocation for type of building by percentage (%).

	In-House	Contracted
Medical/Health	_____	_____
Athletic	_____	_____
Academic	_____	_____
Residential (dorms)	_____	_____
Other	_____	_____

A9. To give an overview of the cleaning schedules and frequencies your operation normally follows, **complete the chart called Description of Cleaning Schedules for your Institution, on page 10.**

A10. To identify and determine costs for duties your operation performs that are not cleaning-related, **complete the chart called Non-Cleaning Related Duties on page 11**.

PERSONNEL INFORMATION

B1. What is the cost of your benefit package by percentage of the total wage package? ____%. Benefits are any costs above and beyond the actual hourly wage of employees.

B2. In this section, identify the hourly wage rates (not including the benefit package) for each position of the wage range.

TITLE	HIRING RATE	MINIMUM REGULAR RATE	MAXIMUM RATE	MOST COMMON OR AVERAGE RATE
Custodial Supt/Manager				
Custodial Supervisor/Foreman				
Custodial Crew Leaders				
Custodian/Housekeeper				

B3. Is the cleaning staff at your institution represented by:

	Yes	**No**	
Union	____	____	If yes, how many unions?____
Civil Service	____	____	

B4. Do you have people in your operation that provide custodial services free of charge on a volunteer basis? If so, how many days per month on an average?

_____ average days a month

B5. To identify the amount of non-supervisory full-time and part-time positions in your operation:

Full Time (40 hours a week)	#____
Part Time (20-39 hours)	#____
Part Time Students (1-19 hours)	#____
Temporary	#____
Other	#____

TRAINING

B6. In many institutions this issue is often neglected and underfunded. The productivity of most employees is directly correlated to the amount of quality teaching that occurs for each employee. How many workhours are spent on an annual basis per custodian for **cleaning-skills training**?

_____workhours per custodian

B7. What is the estimated annual cost per custodian for this cleaning-skills training? (Use the # of workhours (B5) times the average hourly rate (B2) to get this annual training cost.)

$_____per custodian

ORGANIZATIONAL STRUCTURE

B8. How many professional management people (supervisors) are on your staff? (Do not include "crew" leaders who spend a majority of their time actually performing cleaning duties.) #_____

B9. How many full-time custodial employees are under supervision in your operation? (Include crew leaders) #_____

B10. How many part-time custodians on an average are under supervision at any one time? #____

B11. How many full-time custodians exist, on an average, per front-line (professional) supervisor in your operation?

$$\frac{\text{B9 total}}{\text{B8}} = \text{_____ custodians per supervisor}$$

B12. How many part-time custodians exist on an average per front-line supervisor in your operation?

$$\frac{\text{B10 total}}{\text{B8}} = \text{_____p/t custodians per supervisor}$$

GENERAL INFORMATION - These internal factors can affect the performance of your workforce.

B13. Calculate the total number of weeks per year, if any, that there is a legitimate "break" where your custodial staff can perform projects as opposed to routine cleaning.
____# weeks

B14. What is your annual employee turnover rate? (Determine by taking the total number of full-time custodial employees who left employment last year and divide by the total number of full-time custodial employees normally in your operation). _____%

B15. What is the average amount of time it takes for your operation to replace an employee? (Determine from last day of work to the first day of work by the replacement).

Check one:

0-3 weeks___	Over 4-8 weeks ___
Over 8-12 weeks___	More than 12 weeks ___

B16. What percentage of the academic buildings are extensively used for evening or night classes?

0-33%_____ 34-67%_____ 67-100%_____

COMMUNITY ISSUES

C1. To determine the **strength of the labor market** in your region, indicate how many applications you or your Human Resources Department receive for each custodial position that is advertised.
_____# applications per position

C2. What is the present **unemployment rate** for your city or region? ____%

C3. What is your city population? _____# people

C4. What is the advertised average or most common **starting wage** for entry-level service jobs in your community? $ _____

C5. What **environmental challenges** does your community face on a regular or annual basis? Check all that apply.

Snow____ Heavy Rain ____ Sand____ Ice____

Wind-Blown Sand____ Smog____ Other____

QUALITY OF SERVICE

D1. Is your operation using the APPA *Custodial Staffing Guidelines for Educational Facilities* (second edition) publication as a reference? ____yes ____no

D2. Refer to Figure 1 and the APPA Custodial Service Levels. Then evaluate each type of facility on your campus and determine the average "level of service" that your custodial operation is providing for each building type. (For example, Academic Buildings may be rated at 2.5, Medical/Health Buildings may be at 1.0, Residential at 3.5.)

Medical/Health Buildings	____APPA level of service
Athletic Buildings	____APPA level of service
Academic Buildings	____APPA level of service
Residential (Dorms)	____APPA level of service
Other	____APPA level of service

DESCRIPTION OF CLEANING SCHEDULES FOR YOUR INSTITUTION			

↓ AREA — ROUTINE CLEANING FREQUENCY →	DAILY	ALTERNATE DAYS	WEEKLY	TWICE A MONTH	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY	NO SERVICE
RESTROOMS									
PUBLIC AREAS									
PRIVATE OFFICES									
PUBLIC OFFICES									
CLASSROOMS									
RESEARCH LABS									
STAIRWELLS									
STORE ROOMS									
OUTSIDE WINDOWS									
ENTRANCE WAYS									
(OTHER)									
MAJOR CARPET CARE (EXTRACTION/SHAMPOOING)									
public areas									
offices									
classrooms									
MAJOR HARD FLOOR CARE									

stripping and refinishing									
spray buffing									
burnishing									

NON-CLEANING RELATED DUTIES

These are duties that are generally absorbed by most custodial operations yet they are not cleaning-related and funded appropriately.

TASK	ANNUAL COST
SECURITY (unlocking)	
RECYCLING	
SNOW REMOVAL	
MOVING & SETUPS	
RELAMPING	
PEST CONTROL	
GROUNDSKEEPING	
MAIL DELIVERY	
DEMOLITION/REMODELING JOBS	
LIST OTHERS BELOW:	
This total dollar figure will be used for question E4. **Total:**	

CUSTODIAL COSTS & BENCHMARKS

To determine a valid cost per square foot for cleaning services, follow specifically the guidelines listed below:

E1. **Direct Cleaning Costs** for last year

Total Labor Wages **(including entire benefit package value)**		$_____
Total Management Salaries **(including benefit package)**		$_____
Total Annual Supplies Cost		$_____
Total Annual Equipment Purchased (do not include depreciation costs)		$_____
Total Annual Cost for Contracted Services		$_____
Any Other Direct Costs		$_____
	Subtotal	$_____
Chargeback Labor Revenue generated by your staff while working on regular shifts.	*Subtract*	$_____
TOTAL DIRECT CLEANING COSTS	**E1 Total**	$_____

E2. **Indirect Costs** (clerical support, office supplies, travel, postage, pre-employment physicals, other)

Wage & Benefits (total)		$_____
Miscellaneous Operating Costs (travel, postage, etc.)		$_____
	E2 Total	$_____

E3. Total of E1+E2 = **Total cost of your Building Services operation** E3Total$_____**

E4. Cost of Non-Cleaning-Related Duties total from page 6) E4Total-$_____*

E5. Total E3 minus E4 = **(Actual cost for cleaning of buildings on an annual basis).**

$_____**

E6. To establish a cost per square foot benchmark, use the following formula:

E3 Total
A3 (Total GSF)= cost per gross sq. ft. for **entire** Building Services operation $_____**

E5 Total$
A3 (Total GSF)= cost per gross sq. ft. for actual **cleaning** of buildings $_____**

OTHER CUSTODIAL PRODUCTIVITY BENCHMARKS

To determine the average number of gross square feet assigned to each custodian, use the following formula:

E7. Identify the total number of full-time custodial employees (include crew leaders) = #_____

E8. Add total number of hours worked by all other part-time custodial employees together and divide by 2080 hours to establish an FTE equivalent total See section B9

$$\frac{\text{Total Hours}}{2080} = \#_____$$

E9. $\frac{\text{A3 Total}}{\text{E7 + E8}}$ = **Average gross sq. ft. assigned per FTE custodian** _____**

E10. $\frac{\text{A8 (d)}}{\text{E7 + E8}}$ = **Average cleaned sq. ft. (csf) per FTE custodian** _____**

Another method of defining productivity can be found by determining the total work hours per 1000 GSF. To calculate this benchmark, use the following steps:

E11. Multiply (E7+E8) x 2080 hours = TOTAL HOURS WORKED.

E12. $\frac{\text{A3(GSF)Total}}{\text{1000 GSF}}$ = # of (1000 GSF) units

E13. $\frac{\textbf{E11 Total}}{\textbf{E12 Total}}$ = **# work hours per (1000 GSF) annually**

You have reached the end of the APPA Custodial Operation Self-Analysis Program. Please refer to the Introduction for suggestions on how to use this information.

APPA CUSTODIAL SERVICE LEVELS

Level 1 - Orderly Spotlessness

Level 1 establishes cleaning at the highest level. It was developed for the corporate suite, the donated building, or the historical focal point. This is show-quality cleaning for that prime facility.

- Floors and base moldings shine and/or are bright and clean; colors are fresh. There is no buildup in corners or along walls.
- All vertical and horizontal surfaces have a freshly cleaned or polished appearance and have no accumulation of dust, dirt, marks, streaks, smudges, or fingerprints.
- Washroom and shower tile and fixtures gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners are empty, clean, and odor-free.

Level 2 - Ordinary Tidiness

Level 2 is the base upon which this study is established. This is the level at which cleaning should be maintained. Lower levels for washrooms, changing/locker rooms, and similar type facilities are not acceptable.

- Floors and base moldings shine and/or are bright and clean. There is no buildup in corners or along walls, but there can be up to two days worth of dirt, dust, stains, or streaks.
- All vertical and horizontal surfaces are clean, but marks, dust, smudges, and fingerprints are noticeable with close observation.
- Washroom and shower tile and fixtures gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners are empty, clean, and odor-free.

Level 3 - Casual Inattention

This level reflects the first budget cut, or some other staffing-related problem. It is a lowering of normal expectations. While not totally acceptable, it has yet to reach an unacceptable level of cleanliness.

- Floors are swept clean, but upon close observation dust, dirt, and stains, as well as a buildup of dirt, dust, and/or floor finish in corners and along walls, can be seen.
- There are dull spots and/or matted carpet in walking lanes, and streaks and splashes on base molding.
- All vertical and horizontal surfaces have obvious dust, dirt, marks, smudges, and fingerprints.
- Lamps all work and all fixtures are clean.
- Trash containers and pencil sharpeners are empty, clean, and odor-free.

Level 4 - Moderate Dinginess

Level 4 reflects the second budget cut, or some other significant staffing-related problem. Areas are becoming unacceptable. People beginning to accept an environment lacking normal cleanliness. In fact, the facility begins to constantly look like it requires a good "spring cleaning."

- Floors are swept clean, but are dull. Colors are dingy, and there is an obvious buildup of dust, dirt, and/or floor finish in corners and along walls. Molding is dull and contains streaks and splashes.
- All vertical and horizontal surfaces have conspicuous dust, dirt, smudges, fingerprints, and marks that will be difficult to remove.

- Less than 5% of lamps are burned out, and fixtures are dingy.
- Trash containers and pencil sharpeners have old trash and shavings. They are stained and marked. Trash cans smell sour.

Level 5 - Unkempt Neglect

This is the final and lowest level. The trucking industry would call this "just-in-time cleaning." The facility is always dirty, with cleaning accomplished at an unacceptable level.

- Floors and carpets are dirty and have visible wear and/or pitting. Colors are faded and dingy, and there is a conspicuous buildup of dirt, dust, and/or floor finish in corners and along walls. Base molding is dirty, stained, and streaked. Gum, stains, dirt, dust balls, and trash are broadcast.
- All vertical and horizontal surfaces have major accumulations of dust, dirt, smudges, and fingerprints, as well as damage. It is evident that no maintenance or cleaning is done on these surfaces.
- More than 5% of lamps are burned out, and fixtures are dirty with dust balls and flies.
- Trash containers and pencil sharpeners overflow. They are stained and marked. Trash containers smell sour.